

SummaryABSTRACT

~~Disclosed is a~~ A Raman amplifier (10) ~~comprising~~including at least one ~~length~~
~~of~~amplifying fiber (12) and ~~at least a~~ coupler (14) for coupling at least a first ~~pump laser module~~
(16) and a second ~~(18)~~ pump laser modules ~~(18)~~ to ~~said Raman~~the amplifying fiber (12), the first
pump laser module (16) ~~comprising~~including a frequency discriminator (24) for selecting an
optical frequency to be emitted with an optical power exceeding an optical power of remaining
optical frequencies that are also emitted by ~~said~~the first pump laser module (16). The first optical
frequency is ~~selected to be~~ spaced apart from a local maximum (28; 36; 48) in optical power of
~~said~~the remaining optical frequencies, and the second pump laser module (18) emits at an optical
frequency one Stokes-frequency above the frequency of ~~said~~the local maximum (28; 36; 48). The
first optical frequency and the frequency of ~~said~~the local maximum are chosen on Stokes-
frequency above the signal frequency range. As a consequence, the Raman gain provided in the
Raman amplifying fiber 12 is broadened.